ORDER NO.ACED000901C1

C1

Service Manual

AUTOMOTIVE CONSUMER ELECTRONICS

CQ-4400U

Heavy Duty Cassette Player /Weather Band Receiver with Changer Control

SPECIFICATIONS

Specifications *

General

Power Supply	: 12V DC (11V-16V) Test Voltage 14.4V, Negative ground
Maximum Power Output	: 37 Wx4 channel at 400Hz, Volume Control maximum
Power Output	: 18 W per channel into 4 ohms, 40 to 30,000Hz, at 3% THD
Tone Action	: Bass; ± 10 dB at 100Hz Treble; ± 10 dB at 10kHz
Current Consumption	: Less than 2.5 A (0.5W 4-Speaker)
Speaker Impedance	: 4 Ω (4-8Ω acceptable)

AM Radio

Frequence Range	: 530 - 1,710kz
Useable Sensitivity	: 28 dB/μV (25 μV/ S/N 20dB)

FM Stereo Radio

Frequency Range	: 87.9 - 107.9MHz
Useable Sensitivity	: 12 dBf. (1.1μV/75 Ω, S/N 30 dB)
50 dB Quieting Sensitivity	: 17 dBf. (2.0 μV/75Ω)
Frequency Response	: 30 - 15,000Hz ± 3dB
Alternate Channel Sensitivity	: 75 dB
Stereo Separation	: 35 dB at 1,000Hz
Signal/Noise Ratio	: 70 dB (Mono)

WB Radio

Freuency Range	: 162.40 - 162.55MHz
Useable Sensitivity	: 3 dB (S/N 20dB)
Signal/Noise Ratio	: 50 dB (40 dB/μV)

Tape Player

Reproduction System	: 4- track, 2-program stereo
Tape Speed	: 1-7/8" /sec (4.76cm/sec)
FF/REW Time	: Less than 110 sec (C-60)
Frequency Responce	:35-14,000Hz(±3dB,normal) 35-17,000Hz(±3dB,metal)
Wow and Fluter	: 0.12% (WRMS)
Signal/Noise Ratio	: 52 dB 62 dB (Dolby B NR ON)

Dimentions **	: 7"x 1-15/16" x 5-7/8" (178 x 50 x 150mm)
Weight **	: 3 lbs. 8 oz (1.6kg)

* Specifications and the design are subject to possible modification without notice due to improvements.

** Dimentions and weight shown are approximate

*** Above specifications comply with EIA standards.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

1. FEATURES

- 24-Stations Preset (6-FM1, 6-FM2, 6-W/B, 6-AM)
- Metal (CrO2)/Normal Tape Selector.
- Electronic Control of Volume, Bass, Treble, Balance and Fader
- Dolby NR function.
- CD Changer Control function
- TPS (Tape Program Search) function.
- Clock function.
- Head Clean Alarm
- Reset Switch

2. REPLACING THE FUSE

Be sure to use a fuse of the specified rating (10A) when replacing a blown fuse. Fuses with higher capacity ratings, use of any substitute, connection without a fuse may result in a fire hazard or damage to the unit.

3. MAINTENANCE

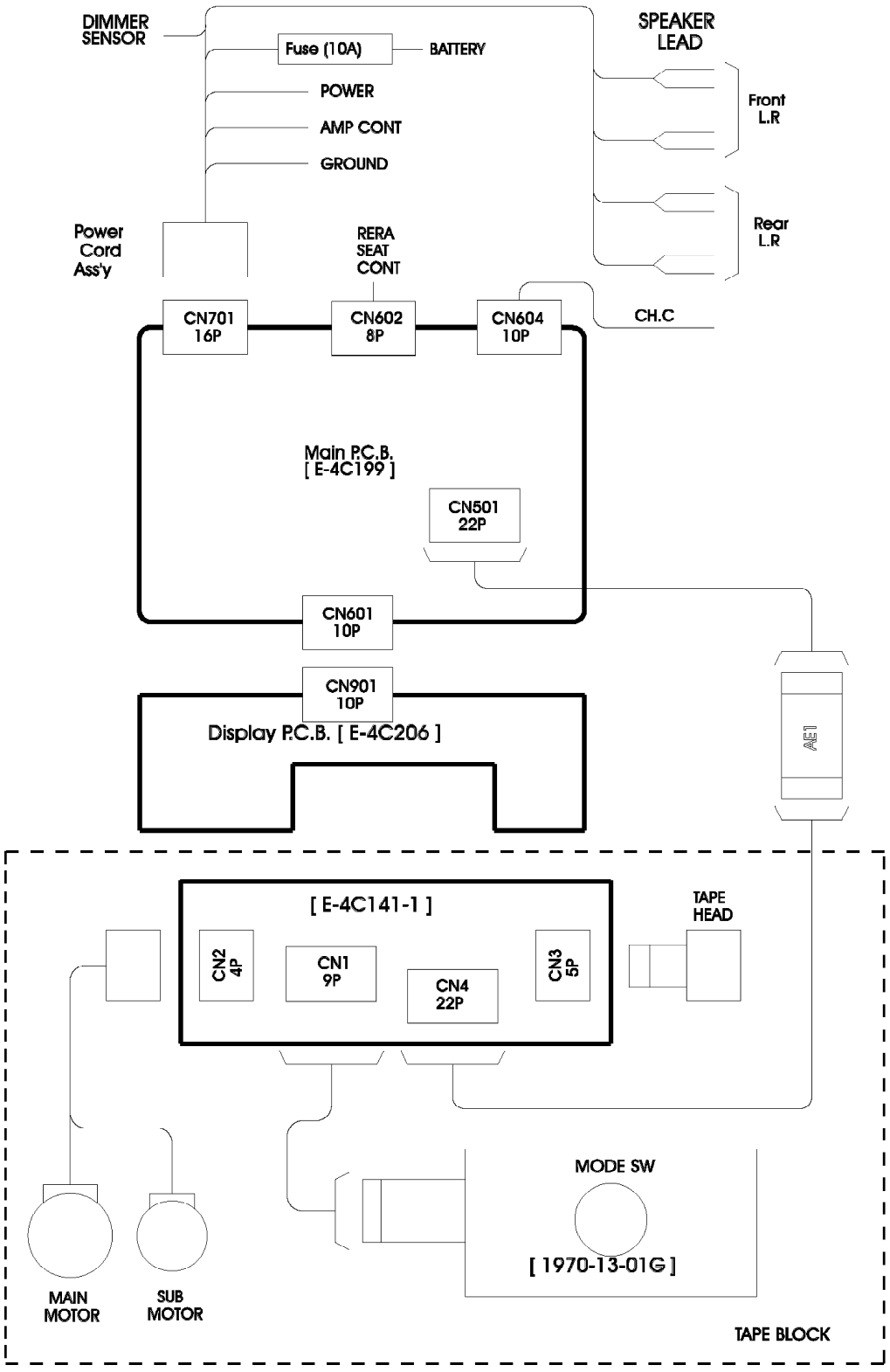
Your product is designed and manufactured to ensure a minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner or other solvent.

4. RADIO ALIGNMENT

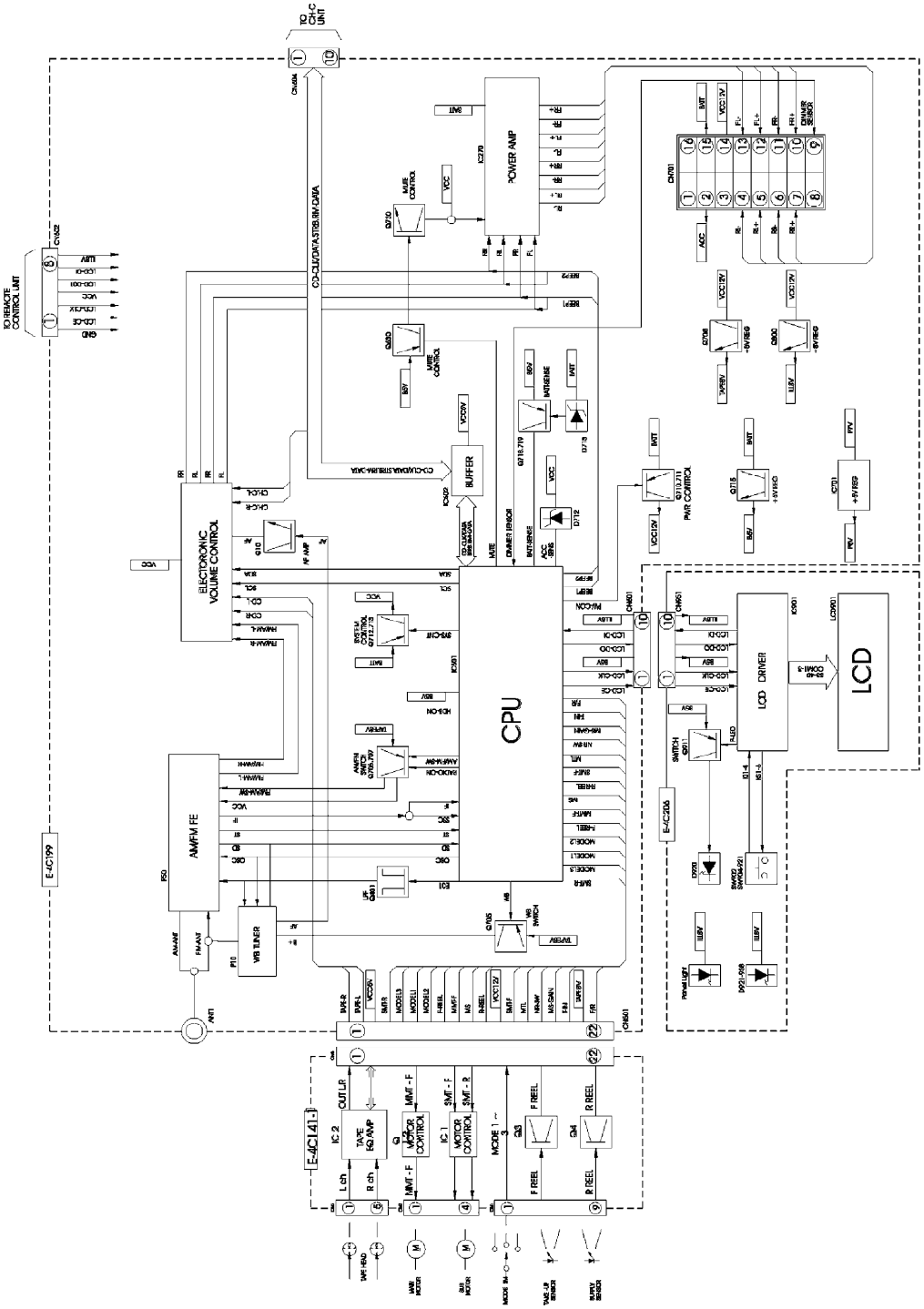
Do not align the AM/FM package blocks. When the package block is necessary, it will be supplied already aligned at the factory.

5. DIMENSIONS

6. WIRING CONNECTION



7. BLOCK DIAGRAM



8. ALIGNMENT INSTRUCTIONS

8.1. Alignment Conditions

- Power Supply Voltage : DC14.4V

- Output Impedance : 4 W

- Balance, Fader Control : Center

- Bass, Treble Control : Center

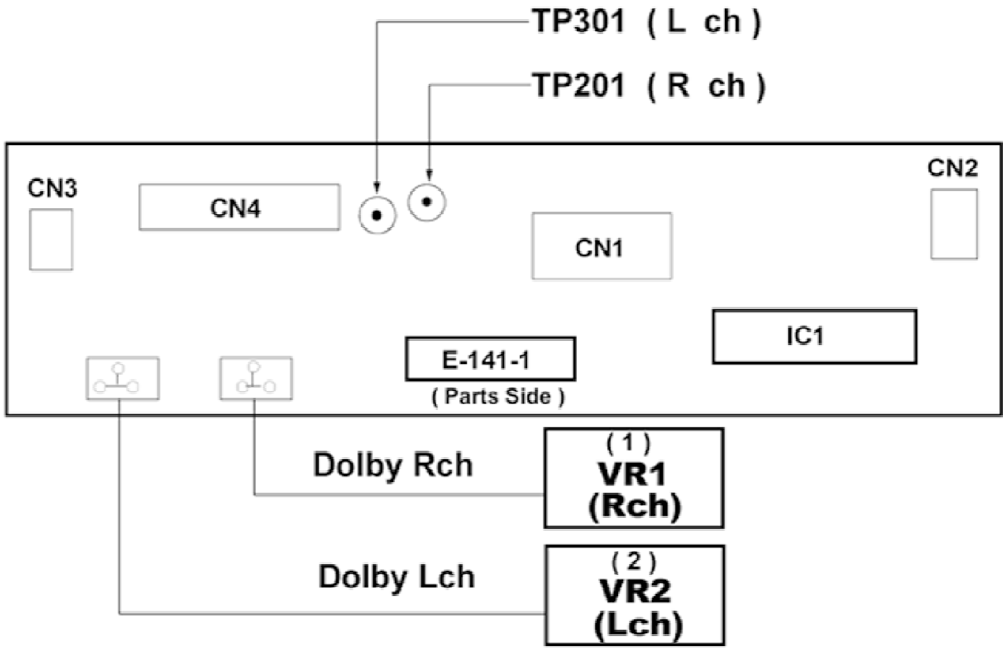
Note:

Do not align the FM/AM package blocks. When the package block is necessary, it will be supplied already aligned at the factory.

8.2. Dolby NR Alignment

Step	Alignment Item	Test Tape	VTVM Connection	Adjust	Remarks
1	DOLBY NR Rch	RFKZ0038	TP201	VR201	Adjust for 388mV ±
2	DOLBY NR Lch	RFKZ0038	TP301	VR301	Adjust for 388mV ±

8.3. Alignment Points



9. WIRING DIAGRAM (Tape Block)

10. WIRING DIAGRAM (Display Block)

11. WIRING DIAGRAM (Main Block)

12. SCHEMATIC DIAGRAM (Tape Block)

13. SCHEMATIC DIAGRAM (Display Block)

14. SCHEMATIC DIAGRAM (Main Block)

15. TERMINALS DESCRIPTION

15.1. Main Block

IC601 YEAM17708621

Pin No.	Name	Description	I/O	Vol. (V)		
				AM	FM	TAPE
1	BATT	Battery Detection	I	5.3	2.5	5.3
2	(NC)	(Connect to Ground)	|	-	-	-
3	MODE2	Tape Detection input	I	4.7	4.7	4.7
4	(NC)	(Connect to Ground)	-	-	-	-
5	MS	No sound Detection (TPS)	I	O	O	O
6	R-REEL	Reel Pulse Detection(R)	I	1.5	2.3	3
7	F-REEL	Reel Pulse Detection(F)	I	1.4	2	3.1
8	(NC)	-	-	-	-	-
9	ST	Stereo Signal Input	I	4.6	4.6	4.6
10	MTL	Deck Metal Output H:ON L: OFF	O	0	0	0
11	DOLBY ON/OFF	Dolby NR ON/ OFF H:OFF L:ON	O	0	0	0
12	(NC)	-	-	-	-	-
13	MS GAIN	Music Search Gain Control	O	0	0	0
14	ACC	ACC Detection	I	5.2	5.2	5.2
15	MMT-F	Main Motor Control	I/O	4.8	4.8	4.8
16	CD MUTE	Main Motor Control	I/O	0	0	0
17	FM/AM BW	FM/AM Select Switch	O	8.1	0	0.1
18	RADIO ON	AM/FM Tuner ON	O	0	0	0.1
19	WB	W/B Tuner ON	O	7.1	7.1	7.1
20	SSC	FM/AM SSC Control	O	0	0	0
21	GND	Ground	-	0	0	0
22	(NC)	-	-	-	-	-
23	(NC)	-	-	-	-	-
24	INIT B	(Pull-down)	-	0	0	0
25	INIT A	(Connect to Ground)	-	0	0	0

Pin No.	Name	Description	I/O	Vol. (V)		
				AM	FM	TAPE
26	SD FM	FM SD Input	I	0.2	0.7	0.7
27	SD AM	AM SD Input	I	2.4	2.4	2.7
28	AMIFC	AM IF Input	I	0	0	0
29	FMIFC	FM IF Input	I	1.2	1.6	2.5
30	VDD	Power supply +5V	-	4.8	4.8	4.8
31	FM/AM OSC	FM OSC Input	I	2.6	2.6	2.6
32	WB OSC	WB OSC Input	I	0	0	0
33	GND	Ground	-	0	0	0
34	E01	FM / AM VT Output	O	1.5	1.5	1.5
35	E02 (NC)	-	-	-	-	-
36	(NC)	(Connect to Ground)	-	-	-	-
37	MONO (NC)	-	-	-	-	-
38	LOC (NC)	-	-	-	-	-
39	BEEP1	Beep Sound Output 1	O	0	0	0
40	BEEP2	Beep Sound Output 2	O	0	0	0
41	CD CLK2	CD Clock 2	I	4.7	4.7	4.7
42	CDC STB	CD Changer Strobe	I	2.3	2.3	2.3
43	TIN/T EXIST	Tape-in Switch Signal input	I	0	0	0
44	(NC)	-	-	-	-	-
45	(NC)	-	-	-	-	-
46	F/R	Forward/Reverse Select Signal	O	0	4.7	0
47	PW CNT	System Power Control	O	4.7	4.7	4.7
48	SYS CNT	AMP ST-BY Control	O	4.8	4.8	4.8
49	MUTE	Mute Control L: mute ON	O	4.8	4.8	4.8
50	PL ON (NC)	-	-	-	-	-
51	HDB ON	S HDB ON Signal Output	O	4.8	4.8	4.8
52	(NC)	-	-	-	-	-
53	CDC SELECT(NC)	-	-	-	-	-

Pin No.	Name	Description	I/O	Vol. (V)		
				AM	FM	TAPE
54	(NC)	-	-	-	-	-
55	LCD D01 (NC)	-	-	-	-	-
56	LCD CLK	LCD Clock	O	0	0	0
57	LCD DI (MO)	LCD Data input	O	0	0	0
58	LCD CE	LCD Chip Enble	O	0.3	0.3	0
59	LCD DO(MI)	LCD Data Output	I	5.3	5.3	5.3
60	(NC)	-	-	-	-	-
61	(NC)	-	-	-	-	-
62	REMOUT	Remoto Data Output	O	4.8	4.8	4.8
63	12C DATA	12C Data	I	0	5	4.9
64	12C CLK	12C Clock	O	5	5	5
65	CDC CLK	CD Changer Clock	I	2	2.3	2.3
66	MOTOR ANT (NC)	-	-	-	-	-
67	CDC DATA	CD Changer Data	I	2	2.3	2.3
68	MOD3	Tape Deck Mode3	O	4.8	4.8	4.8
69	MODE2 (NC)	-	-	-	-	-
70	MODE1	Tape Deck Mode1	I	4.8	4.8	4.8
71	SMT-R	Sub Motor Control (R)	I	4.8	4.8	4.8
72	SMT-F	Sub Motor Control (F)	O	0	4.8	0
73	TELMUTE	Telephone Mute Control	I	4.7	4.7	4.7
74	VTER (NC)	-	-	-	-	-
75	GND	Ground	-	0	0	0
76	X OUT	Crystal Oscilator	O	2.3	2.3	2.3
77	X IN	Crystal Oscilator	I	1.8	1.8	2
78	CE	Chip Enable	I	4.8	4.8	4.8
79	VDD	Power supply +5V	-	4.8	4.8	4.8
80	RESET	Reset input	I	4.8	4.8	4.8

15.2. Display Block

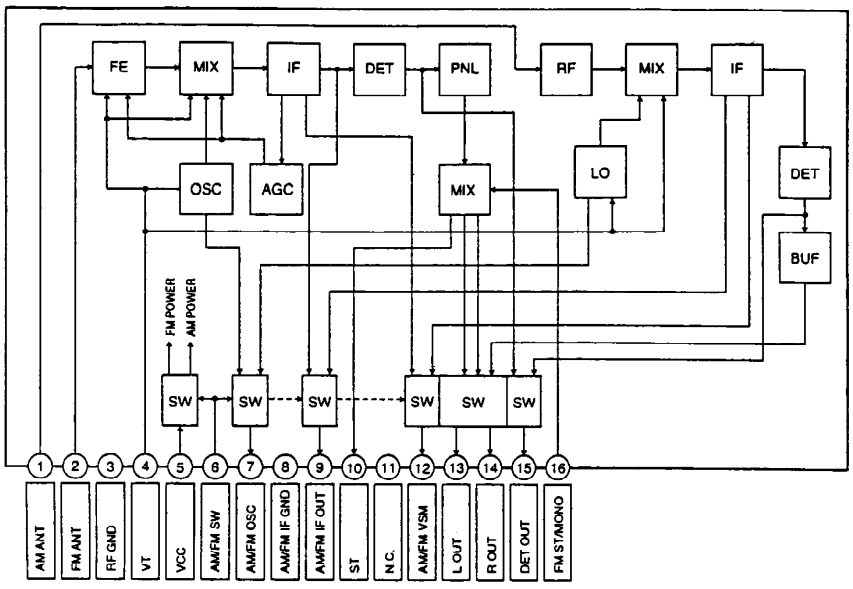
IC901 YEAMLC75853E

Pin No.	Name	Description	I/O	Volt(V)
1	(NC)	-	-	-
2	P.LED	LED Indicator Signal Output	O	0
3~|40	S3~S40	LCD Segment	O	2.7
41	COM1	LCD Common	O	2.7
42	COM2	LCD Common	O	2.7
43	COM3	LCD Common	O	2.7
44~49	KS1~KS6	Key Data Output	O	5.3
50~54	K11~K15	Key Data Input	I	0
55	TEST	(Connect to Ground)	-	0
56	VDD	+5V Power Supply	-	5.3
57	VDD1	+5V Power Supply	-	3.5
58	VDD2	+5V Power Supply	-	1.8
59	VSS	(Connect to Ground)	-	0
60	OSC	CR Oscillator	-	3.9
61	DO	LCD Data Output	O	5.2
62	CE	Chip Enable	I	0.3
63	CLK	LCD Clock Input	I	0
64	DI	LCD Data Input	I	0

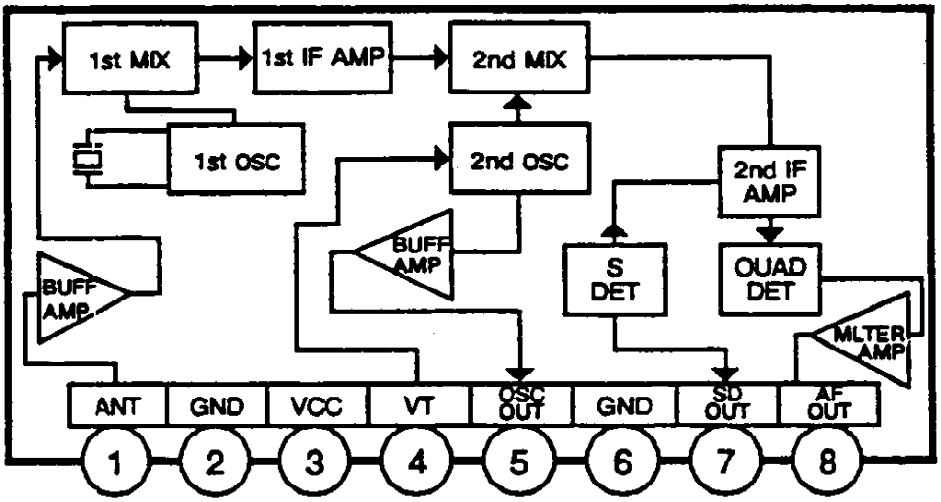
16. PACKAGE AND IC BLOCK DIAGRAM

16.1. Main Block

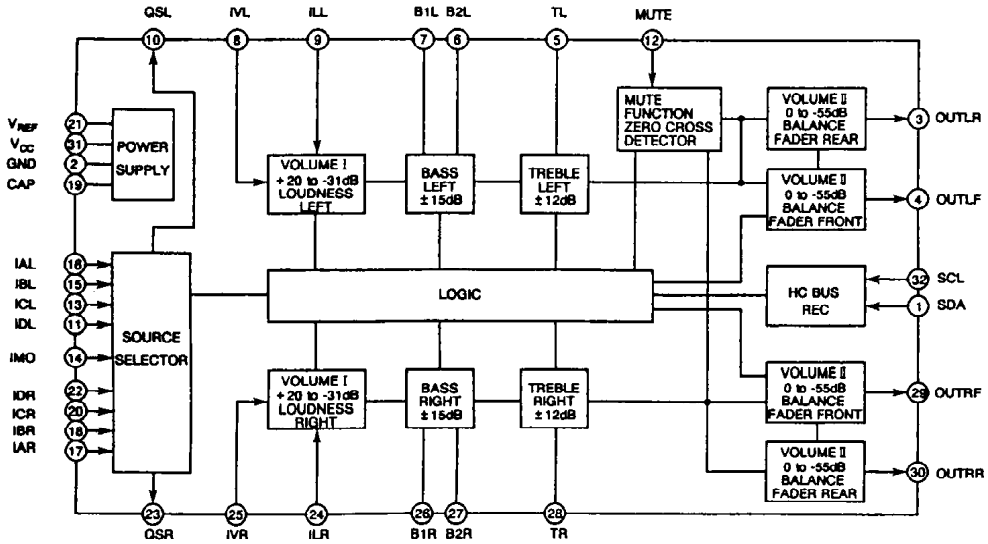
P50 YEAU4CMXU01



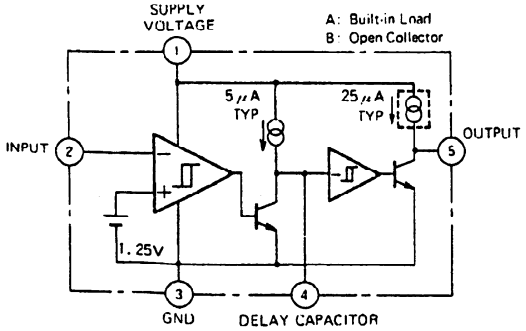
P10 YEAU034CSU02



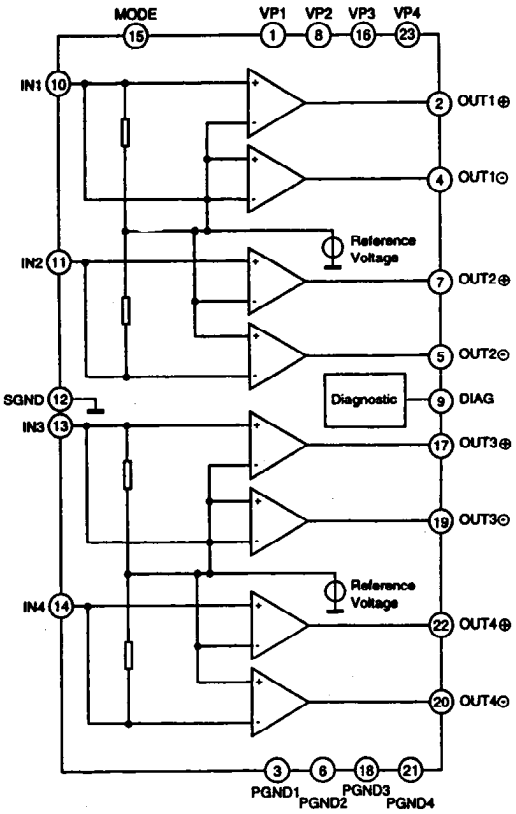
IC205 YEAMEA6320TT



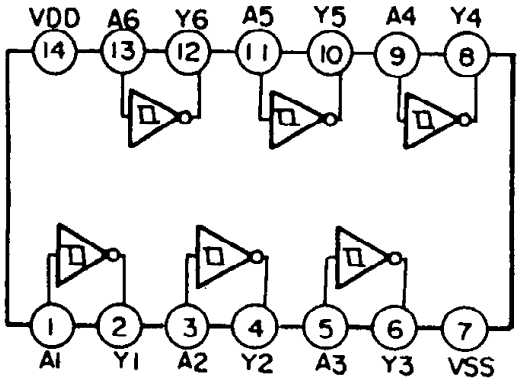
IC800 YEAMM51957AL



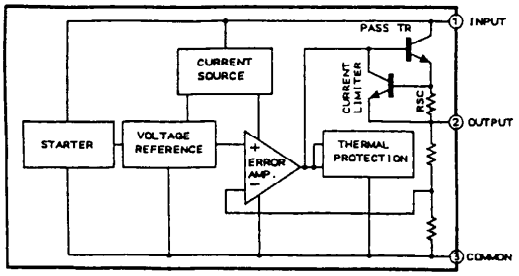
IC270 YEAMTDA8571J



IC602 YEAMTC4584FN

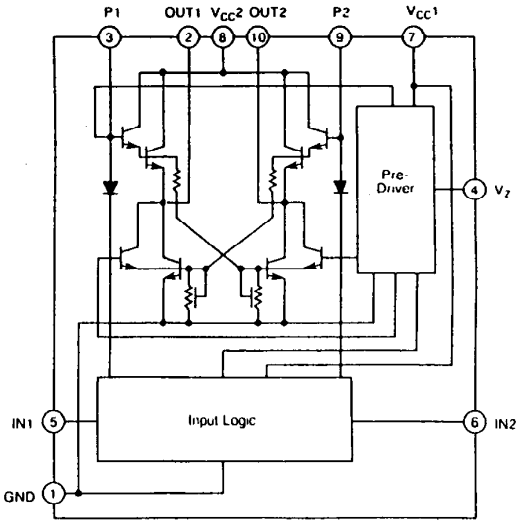


IC701 AN78N05

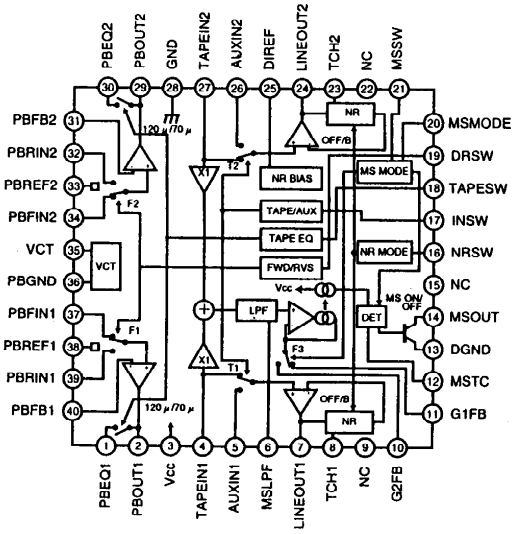


16.2. Tape Block

IC1 YEAMLB1641



IC2 YEAMCXA2510Q



17. REPLACEMENT PARTS LIST (Unit)

Note:

1. Be sure to make your orders of replacement parts according to this list.
2. Important safty notice: Component , indentified by ⚠ mark have special characteristics important for safety. when replacing any of these components, use only manufacturer's specified parts.
3. Location keys in the remarks column indicates the general location of the parts shown in the exploded drawing. as in a load map.
4. The marking (RTL) indicates that Retention Time is linited for this item. After the discontinuation of assembly in production, the item will continue to be availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. Aft the end of this period, the assembly will no longer be available.
5. "T" marks in remarks colum are indicated supply parts of TAMACO.

Ref. No.	Part No.	Part Name & Description	Remarks
1. IC's and Transistors			
MAIN BLOCK [E-4C199]			
IC205	YEAMEA6320TT	IC	
IC270	YEAMTDA8571J	IC	
IC601	YEAM17708621	IC	T
IC602	YEAMTC4584FN	IC	T
IC701	AN78N05	IC	
IC800	YEAMM50957AL	IC	T
P10	YEAU034CSU03	WB Tuner Pack	
P50	CT-U02A	FM/AM Tuner Pack	T
Q1	YEANDTC144ST	Transistor	T
Q2	YEANB123YST	Transistor	T
Q10	YEAN2SC3330T	Transistor	T
Q241	YEANDTC323ST	Transistor	
Q341	YEANDTC323ST	Transistor	
Q401	YEAN2SK583T	Transistor	T
Q630	YEANDTA144ST	Transistor	T
Q703	YEANC114YST	Transistor	T
Q705	YEANB123YST	Transistor	T
Q706	YEANA123YST	Transistor	T
Q707	YEANB123YST	Transistor	T
Q708	YEAN2SD2007T	Transistor	T
Q710	YEANB1243QRT	Transistor	T
Q711	YEANC114YST	Transistor	T
Q712	YEANB123YST	Transistor	T
Q713	YEANC114YST	Transistor	T
IC715	AN78N05	Transistor	
Q800	YEAND1762EF	Transistor	T
DISPLAY BLOCK [E-4C206]			
IC901	YEAMLC75853E	IC	T
Q911	YEANA114EKTX	Transistor	T
TAPE BLOCK [E-4C141-1]			
IC1	YEAMLB1641	IC	T
IC2	YEAMCXA2510Q	IC	T
Q1	YEANB1237QRT	Transistor	T
Q2	YEANC113ZKTX	Transistor	T
Q3	YEANC113ZKTX	Transistor	T
Q4	YEANC113ZKTX	Transistor	T
2. Diodes			
MAIN BLOCK [E-4C199]			
D4	YEADMTZ91BT	Zener Diode	T
D5	YEADRD51JS3T	Zener Diode	T
D10	YEAD1N4005T	Silicon Diode	T
D25	MA856TA	Diode	
D26	YEAD1N4148C	Diode	T
D27	YEAD1N4148C	Diode	T
D50	YEAD1N4148C	Diode	T
D51	MA856TA	Diode	
D60	YEADRD56JS3T	Zener Diode	T
D61	YEADRD56JS3T	Zener Diode	T

Ref. No.	Part No.	Part Name & Description	Remarks
D62	YEADRD56JS3T	Zener Diode	T
D63	YEADRD56JS3T	Zener Diode	T
D255	YEAD1N4005T	Silicon Diode	T
D256	YEAD1N4005T	Silicon Diode	T
D257	YEAD1N4005T	Silicon Diode	T
D258	YEAD1N4005T	Silicon Diode	T
D355	YEAD1N4005T	Silicon Diode	T
D356	YEAD1N4005T	Silicon Diode	T
D357	YEAD1N4005T	Silicon Diode	T
D358	YEAD1N4005T	Silicon Diode	T
D401	YEADMTZ10CT	Silicon Diode	T
D701	YEADSR10A08G	Silicon Diode	T
D702	YEAD1N4005T	Diode	T
D704	YEADMTZ91BT	Zener Diode	T
D708	MA700TA	Diode	
D709	MA700TA	Diode	
D710	YEAD1N4148C	Diode	T
D715	YEAD1N4005T	Silicon Diode	T
D802	YEAD1N4005T	Silicon Diode	T
D900	YEADMTZ91BT	Zener Diode	T
D901	MA700TA	Diode	
D902	MA700TA	Diode	
DISPLAY BLOCK [E-4C206]			
D901	SLR342YYT31	LED (GREEN)	T
D902	SLR342YYT31	LED (GREEN)	T
D903	SLR342YYT31	LED (GREEN)	T
D904	SLR342YYT31	LED (GREEN)	T
D905	SLR342YYT31	LED (GREEN)	T
D906	SLR342YYT31	LED (GREEN)	T
D907	SLR342YYT31	LED (GREEN)	T
D908	SLR342YYT31	LED (GREEN)	T
D909	SLR342YYT31	LED (GREEN)	T
D910	SLR342YYT31	LED (GREEN)	T
D911	SLR342YYT31	LED (GREEN)	T
D912	SLR342YYT31	LED (GREEN)	T
D913	SML210YT	LED (YELLOW)	T
D914	SML210YT	LED (YELLOW)	T
D915	SML210YT	LED (YELLOW)	T
D916	SLR342YYT31	LED (GREEN)	T
D917	SLR342YYT31	LED (GREEN)	T
D918	SML210YT	LED (YELLOW)	T
D919	SML210YT	LED (YELLOW)	T
D920	SML210VT	LED (RED)	T
D921	SML210YT	LED (YELLOW)	T
D922	SML210YT	LED (YELLOW)	T
TAPE BLOCK [E-4C141-1]			
D1	YEAD1A3T	Diode	T
D2	YEADMTZ43BT	Zener Diode	T
3. Capacitors			
MAIN BLOCK [E-4C199]			

Ref. No.	Part No.	Part Name & Description	Remarks
C12	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C17	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C21	ECEA1HKS010I	Electrolytic 1MFD 50WV	
C22	ECEA1AKS101I	Ceramic 100MFD 10WV	
C51	ECEA1CKS470I	Electrolytic 47MFD 16WV	
C52	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C54	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C57	ECUV1H223KBN	Ceramic 0.022MFD 50WV	T
C58	ECUV1H223KBN	Ceramic 0.022MFD 50WV	T
C60	ECUV1H103KBM	Ceramic 0.01MFD 50WV	T
C61	ECUV1H102KBN	Ceramic 0.001MFD 50WV	T
C66	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C223	ECEA1CKS100I	Electrolytic 10MFD 16WV	
C233	ECUV1C224KBN	Ceramic 0.22MFD 16WV	T
C237	ECUV1H333KBN	Ceramic 0.033MFD 50WV	T
C238	ECUV1H562KBN	Ceramic 5600pF 50WV	T
C239	ECEA1HKS3R3I	Ceramic 3.3MFD 50WV	
C240	ECEA1HKS3R3I	Ceramic 3.3MFD 50WV	
C241	ECEA1HKS010I	Electrolytic 1MFD 50WV	
C242	ECEA1HKS010I	Electrolytic 1MFD 50WV	
C249	ECUV1H222KBN	Ceramic 2200pF 50WV	T
C250	ECUV1H222KBN	Ceramic 2200pF 50WV	T
C251	ERJ6GEYJ392	Chip 3.9k ohms 1/10W	T
C253	ECEA1CKS100I	Electrolytic 10MFD 16WV	
C255	ECUV1H683KBM	Ceramic 0.068MFD 50WV	T
C256	ECUV1H683KBN	Ceramic 0.068MFD 50WV	T
C257	ECUV1H683KBM	Ceramic 0.068MFD 50WV	T
C258	ECUV1H683KBM	Ceramic 0.068MFD 50WV	T
C259	ECUV1H221KBN	Ceramic 220pF 50WV	T
C260	ECUV1H221KBN	Ceramic 220pF 50WV	T
C261	ECUV1H221KBN	Ceramic 220pF 50WV	T
C262	ECUV1H221KBN	Ceramic 220pF 50WV	T
C263	ECUV1H221KBN	Ceramic 220pF 50WV	T
C264	ECUV1H221KBN	Ceramic 220pF 50WV	T
C265	ECUV1H221KBN	Ceramic 220pF 50WV	T
C266	ECUV1H221KBN	Ceramic 220pF 50WV	T
C267	ECUV1H102KBN	Ceramic 1000pF 50WV	T
C269	ECUV1H102KBM	Ceramic 1000pF 50WV	T
C270	ECUV1H102KBN	Ceramic 1000pF 50WV	T
C271	ECUV1H224ZFN	Ceramic 0.22MFD 50WV	T
C272	ECUV1H221KBN	Ceramic 220pF 50WV	T
C273	ECUV1H224ZFN	Ceramic 0.22MFD 50WV	T
C324	ECEA0JKS470I	Electrolytic 47MFD 6.3WV	
C325	ECEA1AKS101I	Ceramic 100MFD 10WV	
C331	ECEA1HKS3R3I	Ceramic 3.3MFD 50WV	
C332	ECEA1CKS100I	Electrolytic 10MFD 16WV	
C333	ECUV1C224KBN	Ceramic 0.22MFD 16WV	T
C337	ECUV1H333KBN	Ceramic 0.033pF 50WV	T
C338	ECUV1H562KBM	Ceramic 5600pF 50WV	T
C339	ECEA1HKS3R3I	Ceramic 3.3MFD 50WV	
C340	ECEA1HKS3R3I	Ceramic 3.3MFD 50WV	
C341	ECEA1HKS010I	Electrolytic 1MFD 50WV	
C342	ECEA1HKS010I	Electrolytic 1MFD 50WV	
C349	ECUV1H222KBN	Ceramic 2200pF 50WV	T

Ref. No.	Part No.	Part Name & Description	Remarks
C350	ECUV1H222KBN	Ceramic 2200pF 50WV	T
C351	ERJ6GEYJ392	Chip 3.9k ohms 1/10W	T
C353	ECEA1CKS100I	Electrolytic 10MFD 16WV	
C355	ECUV1H683KBN	Ceramic 0.068MFD 50WV	T
C356	ECUV1H683KBM	Ceramic 0.068MFD 50WV	T
C357	ECUV1H683KBM	Ceramic 0.068MFD 50WV	T
C358	ECUV1H683KBN	Ceramic 0.068MFD 50WV	T
C360	ECUV1H102KBM	Ceramic 1000pF 50WV	T
C361	ECUV1H102KBM	Ceramic 1000pF 50WV	T
C362	ECUV1H102KBN	Ceramic 1000pF 50WV	T
C363	ECUV1H102KBN	Ceramic 1000pF 50WV	T
C364	ECUV1H102KBN	Ceramic 1000pF 50WV	T
C365	ECUV1H102KBN	Ceramic 1000pF 50WV	T
C366	ECUV1H102KBN	Ceramic 1000pF 50WV	T
C401	ECEA1VSN4R7I	Ceramic 4.7MFD 35WV	
C408	ECUV1H102KBN	Ceramic 0.001MFD 50WV	T
C402	ECEA1AKS101I	Ceramic 100MFD 10WV	
C403	ECUV1H104KBN	Ceramic 0.1MFD 50WV	T
C411	ECUV1H154ZFN	Ceramic 0.15MFD 50WV	T
C412	ECUV1C334KBN	Ceramic 0.33MFD 16WV	T
C600	ECUV1H104ZFN	Ceramic 0.1MFD 50WV	T
C601	ECUV1H220JCN	Ceramic 22pF 50WV	T
C602	ECUV1H220JCN	Ceramic 22pF 50WV	T
C608	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C614	ECEA0JKS331I	Ceramic 330MFD 6.3WV	
C620	ECEA1CKS100I	Electrolytic 10MFD 16WV	
C625	ECUV1H101KBN	Ceramic 100MFD 50WV	T
C626	ECUV1H680JCN	Ceramic 68pF 50WV	T
C631	ECEA1HKS010I	Electrolytic 1MFD 50WV	
C632	ECEA1CKS100I	Electrolytic 10MFD 16WV	
C654	ECUV1H104ZFN	Ceramic 0.1MFD 50WV	T
C655	ECUV1H104ZFN	Ceramic 0.1MFD 50WV	T
C656	ECUV1H104ZFM	Ceramic 0.1MFD 50WV	T
C701	ECEA0JKS101I	Ceramic 100MFD 6.3WV	T
C705	ECEA1CKS101I	Ceramic 100MFD 16WV	
C707	ECEA1AKS221I	Ceramic 220MFD 10WV	
C708	ECEA1AKS221I	Ceramic 220MFD 10WV	
C709	ECEA1CKS101I	Ceramic 100MFD 16WV	
C715	ECEA0JKS331I	Ceramic 330MFD 6.3WV	
C717	ECEA1CKS100I	Electrolytic 10MFD 16WV	
C718	ECEA1HKS010I	Electrolytic 1MFD 50WV	
C720	ECEA1CU472YC	Electrolytic 4700MFD 16WV	
C721	ECEA1AKS221I	Electrolytic 220MFD 10WV	
C722	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C733	ECUV1H222KBN	Ceramic 2200pF 50WV	T
C799	ECEA1CU222C	Electrolytic 2200MFD 35WV	
C900	ECUV1H104KBN	Ceramic 0.1MFD 50WV	T
C950	ECEA1HKS010I	Electrolytic 1MFD 50WV	
DISPLAY BLOCK [E-4C206]			
C901	ECUV1H104ZFN	Ceramic 0.1MFD 50WV	T
C902	ECUV1H104ZFN	Ceramic 0.1MFD 50WV	T
C903	ECUV1H104ZFN	Ceramic 0.1MFD 50WV	T
C904	ECUV1H102KBN	Ceramic 0.1MFD 50WV	T

Ref. No.	Part No.	Part Name & Description	Remarks
TAPE BLOCK [E-4C141-1]			
C1	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C2	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C3	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C4	ECUV1H103KBN	Ceramic 0.01MFD 50WV	T
C5	ECEA1AKS330IV	Electrolytic 33MFD 10WV	
C6	ECEA1CKS470IV	Electrolytic 47MFD 16WV	
C7	ECEA1CKS470IV	Electrolytic 47MFD 16WV	
C8	ECEA1HKS2R2IV	Ceramic 2.2MFD 50WV	
C9	ECEA1HKS2R2IV	Ceramic 2.2MFD 50WV	
C10	ECUV1H104KBN	Ceramic 0.1MFD 50WV	T
C11	ECUV1H104KBN	Ceramic 0.1MFD 50WV	T
C12	ECUV1H104KBN	Ceramic 0.1MFD 50WV	T
C15	ECUV1H223KBN	Ceramic 0.022MFD 50WV	T
C16	ECUV1C224KBN	Ceramic 0.22MFD 16WV	T
C17	ECEA1CKS100IV	Electrolytic 10MFD 16WV	
C18	ECEA1CKS100IV	Electrolytic 10MFD 16WV	
C19	ECUV1H271KCN	Ceramic 270MFD 50WV	T
C20	ECUV1H271KCN	Ceramic 270MFD 50WV	T
C21	ECUV1H271KCN	Ceramic 270MFD 50WV	T
C22	ECUV1H271KCN	Ceramic 270MFD 50WV	T
C24	ECUV1H822KBN	Ceramic 8200pF 50WV	T
4. Resistors			
MAIN BLOCK [E-4C199]			
J1	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J2	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J3	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J4	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J5	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J6	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J7	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J8	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J9	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J11	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J12	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J20	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J22	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J23	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J24	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J26	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J31	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J41	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J42	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J44	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J45	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J48	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J49	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J53	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J54	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J71	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J72	ERJ8GX0R00V	Chip 0 ohms 1/8W	T

Ref. No.	Part No.	Part Name & Description	Remarks
J73	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J75	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J81	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J82	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J83	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J84	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J89	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J90	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J95	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J96	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J97	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J102	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J169	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J175	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J671	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J672	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J796	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J800	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J801	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J802	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J804	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J805	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J806	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J807	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J808	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J810	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J811	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J821	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J822	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J825	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
J831	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J835	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J860	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J861	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J862	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
R252	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
L601	ERJ6GEY0R00V	Chip 0 ohms 1/10W	T
R3	ERD25TJ471	Carbon 470 ohms 1/4W	T
R4	ERJ6GEYJ473	Chip 47k ohms 1/10W	
R6	ERJ8GEYJ124V	Chip 120k ohms 1/8W	T
R7	ERDS2TJ472	Carbon 4.7k ohms 1/4W	T
R20	ERJ6GEYJ222	Chip 2.2k ohms 1/10W	T
R21	ERJ6GEYJ224	Chip 220k ohms 1/10W	T
R22	ERJ6GEYJ222	Chip 2.2k ohms 1/10W	T
R23	ERJ6GEYJ152	Chip 1.5k ohms 1/10W	T
R25	ERJ8GEYJ332V	Chip 3.3k ohms 1/8W	T
R26	ERJ6GEYJ332	Chip 3.3k ohms 1/10W	T
R50	ERJ6GEYJ5R6	Chip 5.6 ohms 1/10W	T
R51	ERJ6GEYJ472	Chip 4.7k ohms 1/10W	T
R52	ERJ6GEYJ223	Chip 22k ohms 1/10W	T
R53	ERJ6GEYJ221	Chip 220 ohms 1/10W	T
R54	ERJ8GEYJ103V	Chip 10k ohms 1/8W	T
R55	ERJ6GEYJ102	Chip 1k ohmsS 1/10W	T
R56	ERJ8GEYJ103V	Chip 10k ohms 1/8W	T

Ref. No.	Part No.	Part Name & Description	Remarks
R58	ERDS2TJ332	Carbon 3.3k ohms 1/4W	T
R59	ERJ6GEYJ822	Chip 8.2k ohms 1/10W	T
R225	ERJ6GEYJ822	Chip 8.2k ohms 1/10W	T
R226	ERJ6GEYJ332	Chip 3.3k ohms 1/10W	T
R251	ERD25TJ562	Chip 5.6k ohms 1/4W	T
C252	ERJ6GEYJ392	Chip 3.9k ohmsS 1/10W	T
R271	ERD25TJ101	Carbon 100 ohms 1/4W	T
R272	ERD25TJ101	Carbon 100 ohms 1/4W	T
R281	ERJ6GEYJ223	Chip 22k ohms 1/10W	T
R282	ERJ6GEYJ223	Chip 22k ohms 1/10W	T
R325	ERJ8GEYJ822V	Chip 8.2k ohms 1/8W	T
R326	ERJ6GEYJ332	Chip 3.3k ohms 1/10W	T
R338	ERJ6GEYJ102	Chip 1k ohms 1/10W	T
R339	ERJ6GEYJ102	Chip 1k ohms 1/10W	T
R351	ERD25TJ562	Chip 5.6k ohms 1/4W	T
R371	ERD25TJ101	Chip 100 ohms 1/4W	T
R372	ERD25TJ101	Chip 100 ohms 1/4W	T
R381	ERJ8GEYJ223V	Chip 22k ohms 1/8W	T
R382	ERG6GEYJ223	Chip 22k ohms 1/10W	T
R401	ERJ8GEYJ472V	Chip 4.7k ohms 1/8W	T
R404	ERDS2TJ152	Carbon 1.5k ohms 1/4W	T
R405	ERJ6GEYJ152V	Chip 1.5k ohms 1/10W	T
R406	ERDS2TJ152	Carbon 1.5k ohms 1/4W	T
R407	ERJ6GEYJ471	Chip 470 ohms 1/10W	T
R408	ERD25TJ181	Carbon 180 ohms 1/4W	T
R411	ERJ8GEYJ103V	Chip 10k ohms 1/8W	T
R412	ERDS2TJ123	Carbon 12k ohms 1/4W	T
R413	ERJ6GEYJ123	Chip 12k ohms 1/10W	T
R414	ERJ6GEYJ123	Chip 12k ohms 1/10W	T
R600	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R601	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R603	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R604	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R606	ERJ8GEYJ473V	Chip 47k OHMS 1/8W	T
R612	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R613	ERJ8GEYJ1022V	Chip 10.2k ohms 1/8W	T
R614	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R615	ERD25TJ473	Carbon 47k ohms 1/4W	T
R616	ERDS2TJ473	Carbon 47k ohms 1/4W	T
R619	ERJ8GEYJ473V	Chip 47k OHMS 1/8W	T
R620	ERDS2TJ103	Carbon 10k ohms 1/4W	T
R621	ERJ6GEYJ103	Chip 10k ohms 1/10W	T
R623	ERJ6GEYJ183	Chip 18k ohms 1/10W	T
R628	ERJ8GEYJ473V	Chip 47k ohms 1/8W	T
R629	ERJ6GEYJ683	Chip 68k ohms 1/10W	T
R636	ERJ6GEYJ103	Chip 10k ohms 1/10W	T
R637	ERJ8GEYJ103V	Chip 10k OHMS 1/8W	T
R654	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R655	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R656	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R668	ERJ6GEYJ102	Chip 10k ohms 1/10W	T
R669	ERJ6GEYJ102	Chip 10k ohms 1/10W	T
R670	ERJ6GEYJ102	Chip 10k ohms 1/10W	T
R671	ERJ8GEYJ473V	Chip 47k ohms 1/8W	T

Ref. No.	Part No.	Part Name & Description	Remarks
R672	ERJ8GEYJ473V	Chip 47k ohms 1/8W	T
R673	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R721	ERD25FJ5R6T	Carbon 5.6 ohms 1/4W	T
R722	ERD25FJ471T	Carbon 470 ohms 1/4W	T
R723	ERD25FJ5R6T	Carbon 5.6 ohms 1/4W	T
R725	ERG8GEYJ221V	Chip 220 ohms 1/8W	T
R727	ERJ8GEYJ473V	Chip 47k ohms 1/8W	T
R728	ERD25TJ681	Carbon 680 ohms 1/4W	T
R729	ERD25TJ681	Carbon 680 ohms 1/4W	T
R736	ERJ6GEYJ105	Chip 1000k ohms 1/10W	T
R737	ERJ8GEYJ472V	Chip 4.7k ohms 1/8W	T
R740	ERD25TJ472	Carbon 4.7k ohms 1/4W	T
R900	ERJ8GEYJ5R6V	Chip 5.6 ohms 1/8W	T
R901	ERJ8GEYJ471V	Chip 470 ohms 1/8W	T
R902	ERD25TJ102	Carbon 1k ohms 1/4W	T
R910	ERJ8GEYJ102V	Chip 1k ohms 1/8W	T
R911	ERJ8GEYJ122V	Chip 1.2k ohms 1/8W	T
R912	ERJ6GEYJ153	Chip 15k ohms 1/10W	T
DISPLAY BLOCK [E-4C206]			
R901	ERJ6GEYJ181	Chip 180 ohms 1/10W	T
R902	ERJ6GEYJ181	Chip 180 ohms 1/10W	T
R903	ERJ6GEYJ181	Chip 180 ohms 1/10W	T
R904	ERJ6GEYJ181	Chip 180 ohms 1/10W	T
R905	ERJ8GEYJ181V	Chip 180 ohms 1/8W	T
R906	ERJ6GEYJ391	Chip 390 ohms 1/10W	T
R907	ERJ8GEYJ391V	Chip 390 ohms 1/8W	T
R908	ERJ8GEYJ390V	Chip 39 ohms 1/8W	T
R909	ERJ6GEYJ331	Chip 330 ohms 1/10W	T
R910	ERJ6GEYJ103	Chip 10k ohms 1/10W	T
R911	ERJ6GEYJ473	Chip 47k ohms 1/10W	T
R912	ERJ6GEYJ4R7	Chip 4.7 ohms 1/10W	T
R913	ERJ6GEYJ391	Chip 390 ohms 1/10W	T
TAPE BLOCK [E-4C141-1]			
J101	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J102	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J103	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J104	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J105	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J106	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J107	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J108	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J109	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J110	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J111	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J112	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J113	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J114	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J115	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J116	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J117	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J118	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J119	ERJ8GX0R00V	Chip 0 ohms 1/8W	T

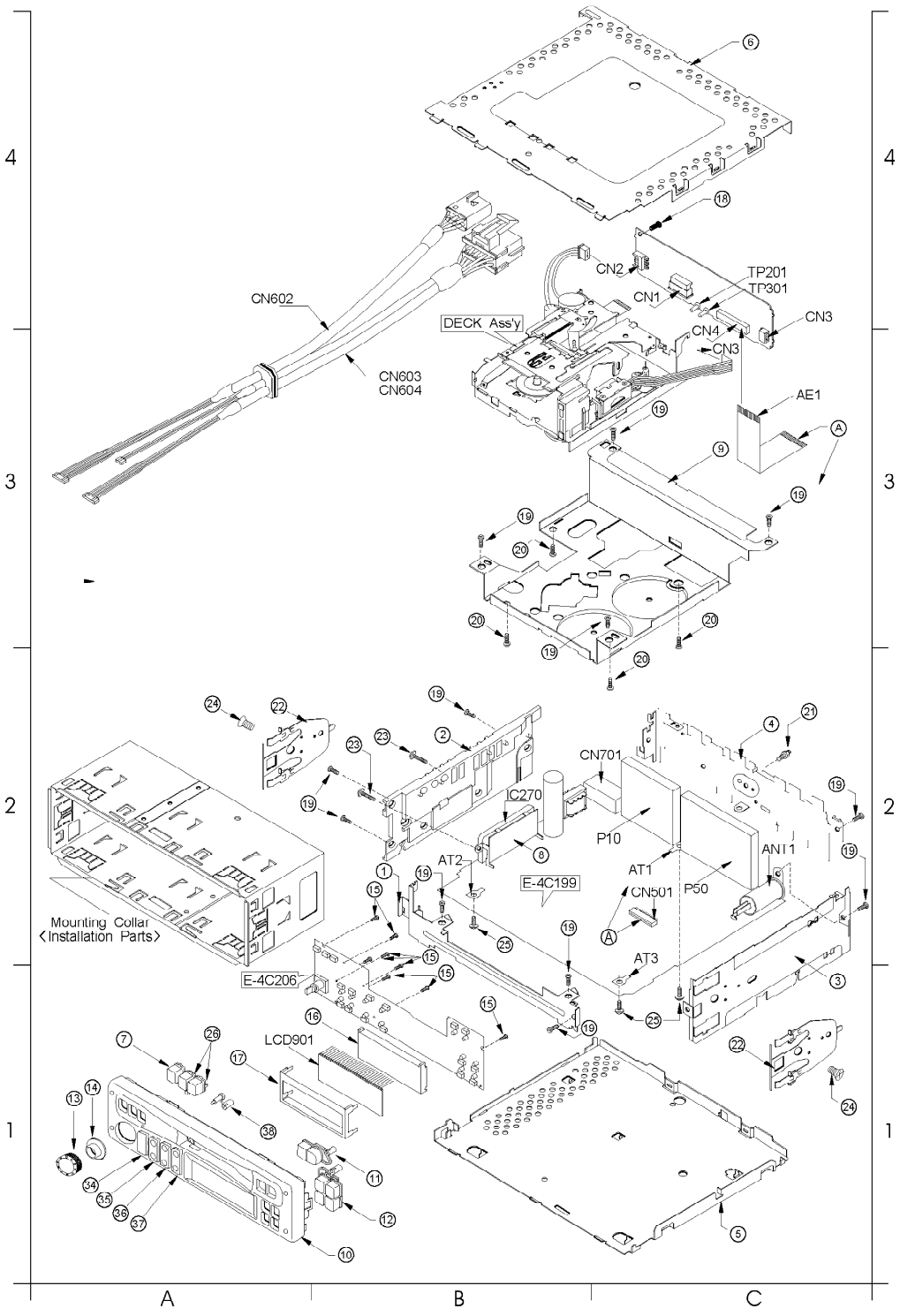
Ref. No.	Part No.	Part Name & Description	Remarks
J120	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J121	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J122	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J123	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J124	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J125	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
J126	ERJ8GX0R00V	Chip 0 ohms 1/8W	T
R1	ERJ6GEYJ683	Carbon 68k ohms 1/10W	T
R2	ERJ6GEYJ223	Carbon 22K ohms 1/10W	T
R3	ERJ6GEYJ683	Carbon 68k ohms 1/10W	T
R4	ERJ6GEYJ683	Carbon 68k ohms 1/10W	T
R5	ERJ6GEYJ683	Carbon 68k ohms 1/10W	T
R6	ERJ6GEYJ391	Carbon 390 ohms 1/10W	T
R7	ERJ6GEYJ391	Carbon 390 ohms 1/10W	T
R8	ERJ6GEYJ104	Carbon 100k ohms 1/10W	T
R9	ERJ6GEYJ392	Carbon 3.9k ohms 1/10W	T
R12	ERJ8GEYJ103V	Carbon 10k ohms 1/8W	T
R13	ERJ8GEYJ103V	Carbon 10k ohms 1/8W	T
R14	ERJ8GEYJ103V	Carbon 10k ohms 1/8W	T
R15	ERJ8GEYJ222V	Carbon 2.2k ohms 1/8W	T
R17	ERJ6GEYJ223	Carbon 22k ohms 1/10W	T
R18	ERDS1FJ100	Carbon 10 ohms 1/2W	T
R19	ERJ6GEYJ121	Carbon 120 ohms 1/10W	T
R22	ERJ6GEYJ473	Carbon 47k ohms 1/10W	T
R23	ERJ6GEYJ473	Carbon 47k ohms 1/10W	T
R24	ERJ6GEYJ183	Carbon 18k ohms 1/10W	T
R25	ERJ6GEYJ183	Carbon 18k ohms 1/10W	T
R26	ERJ6GEYJ183	Carbon 18k ohms 1/10W	T
R27	ERJ6GEYJ183	Carbon 18k ohms 1/10W	T
R28	ERJ6GEYJ183	Carbon 18k ohms1/10W	T
R29	ERJ6GEYJ274	Carbon 270k ohms 1/10W	T
R30	ERJ6GEYJ274	Carbon 270k ohms 1/10W	T
R31	ERJ8GEYJ152V	Carbon 1.5k ohms 1/8W	T
R33	ERJ8GEYJ101V	Carbon 100 ohms 1/8W	
J1	ERDS2TJ220	Carbon 22 ohms 1/4W	T
J2	ERDS2TJ220	Carbon 22 ohms 1/4W	T
5. Connectors			
MAIN BLOCK [E-4C199]			
CN501	YEAE012659	Connector	
CN601	YEAETKCF010	Connector	T
CN602	YEAEA2001-8P	Connector	T
CP602	YEAE5400U	Cord Ass'y	T
CN603	YEAEA2001-3P	Connector	T
CN604	YEAEA2001-7P	Connector	T
CN901	YEAETKCF010	Connector	T
CN701	YEAE4CCON018	Connector	T
DISPLAY BLOCK [E-4C206]			
CN901	YEAETKCF10XS	Connector	
TAPE BLOCK [E-4C141-1]			
CN1	YEAE5597A09	Connector	

Ref. No.	Part No.	Part Name & Description	Remarks
CN2	YEAE5320404	Connector	
CN3	YEAE012684	Connector	
CN4	YEAE012659	Connector	
6. Electric Parts			
SWITCHES			
SW1	YEAS08031B62	Switch	
SW901	EVQPJJ04T	Switch	
SW902	EVQPJJ04T	Switch	
SW904	EVQPJJ04T	Switch	
SW905	EVQPJJ04T	Switch	
SW909	EVQPJJ04T	Switch	
SW910	EVQPJJ04T	Switch	
SW911	EVQPJJ04T	Switch	
SW912	K0H1BA000083	Switch	
SW913	EVQPJJ04T	Switch	
SW914	EVQPJJ04T	Switch	
SW915	K0H1BA000083	Switch	
SW916	EVQPJJ04T	Switch	
SW917	EVQPJJ04T	Switch	
SW918	EVQPJJ04T	Switch	
SW919	EVQPJJ04T	Switch	
SW920	EVQPJJ04T	Switch	
SW921	EVQPJJ04T	Switch	
CRYSTAL			
XL601	YEXL4C45TT	Crystal	T
COILS			
L30	YELTBLM21A10	Coil	T
L31	YELTBLM21A10	Coil	T
L32	YELTBLM21A10	Coil	T
L33	YELTBLM21A10	Coil	T
L35	YELTBLM21A10	Coil	T
L36	YELTBLM21A10	Coil	T
L101	YELT02C330KT	Axil Coil	T
L700	YETQ024C035	Choke Coil	T
L900	YELTBLM21B10	Coil	T
L901	YELTBLM21B10	Coil	T
BPF	YEXC07T009	Band Pass Filter	T
LCD			
LCD901	YEXDCM4C082	LCD	
POSISTOR			
PT701	YERT7AR4R7MT	Posistor	
VARIABLE RESISTORS			
VR901	EVQBAR00109B	Encode VR	
7. Accessories			
PRINTING			

Ref. No.	Part No.	Part Name & Description	Remarks
	YFM094C012ZA	W/B Service List	T
INSTALLATION PARTS			
	FX0214C079YA	Mounting Collar	T
8. Mechanical Parts			
MISCELLANEOUS			
ANT1	YAA104C700ZA	ANT Jack	T
Z50	ERZG07DK470T	ZNR	T
Z51	YEADSPD201M	Surge Protector	
AT1	YEAT03420	Terminal	
AT2	YEAT03420	Terminal	
AT3	YEAT03420	Terminal	
AE1	YEAEFFC005	Frexible Circuit Board	T
TP2	YEAT034C011	Terminal	T
TP3	YEAT034C011	Terminal	T
TP4	YEAT034C011	Terminal	T
TP5	YEAT034C011	Terminal	T
TP201	YEAT034C010	Terminal	T
TP301	YEAT034C010	Terminal	T
1	YFA074C030ZA	Front Panel	T(1-B)
2	YFF014C044ZA	Heat Shink	T(2-B)
3	YFA094C082ZA	Right Plate	T(1-C)
4	YFA084C030YA	Rear Plate	T(2-C)
5	YFA054C029ZA	Under Cover	T(1-C)
6	YFA034C035YB	Upper Cover	T(4-C)
7	YFE134C303ZA	Button (pwr)	T(1-A)
8	FX0214C172XA	IC Bracket	T(2-B)
9	FX0214C203ZA	Deck Bracket	T(3-C)
10	YFC024C502ZA	Escutcheon Ass'y	T(1-A)
11	YFE134C305ZA	Button (EJECT)	T(1-B)
12	YFE134C306ZA	Button (MUDE/BAND/ALM/CLK)	T(1-B)
13	YFE074C053ZA	Button (KNOB)	T(1-B)
14	FX0014C055ZA	Panel LIGHT	T(1-A)
15	XTN2+8GFZ	Screw	T(1-B)
16	YEAD4400U	Back Light Modul	T(1-B)
17	FX0214C236ZA	LCD Bracket	T(1-B)
18	XTW2+5FFXS	Screw	T(4-C)
19	XTB3+6FFXS	Screw	T(2-B) (2-C)
20	YEJS064C001	Screw	T(3-B) (3-C)
21	YEJV014C002A	Bolt	T(2-C)
22	FX0054C030ZA	Spring Plate	T(2-A) (1-C)
23	YEJT034C019	Screw (Cup Tight 3mm x12mm)	T(2-B)
24	XSS5+6FXS	Screw	T(2-A) (1-C)
25	YEJT034C001	Screw	T(1-B) (1-C)
26	YFE134C304ZA	Button (EJECT)	T(1-A)
34	YFE134C299ZA	Button (SEEK/TUNE)	T(1-A)
35	YFE134C315ZA	Button (1 SKP/4 TPS)	T(1-A)
36	YFE134C316ZA	Button (2 NR/5 MTL)	T(1-A)
37	YFE134C317ZA	Button (3 REP/6 RAND)	T(1-A)
38	YFE134C328ZA	Button (RESET)	T(1-A)

18. EXPLODED VIEW (Unit)

■ Numbers in ○ are indicated REF.No.in the REPLACEMENT PARTS LIST



19. REPLACEMENT PARTS LIST (Tape Player Parts)

Note:

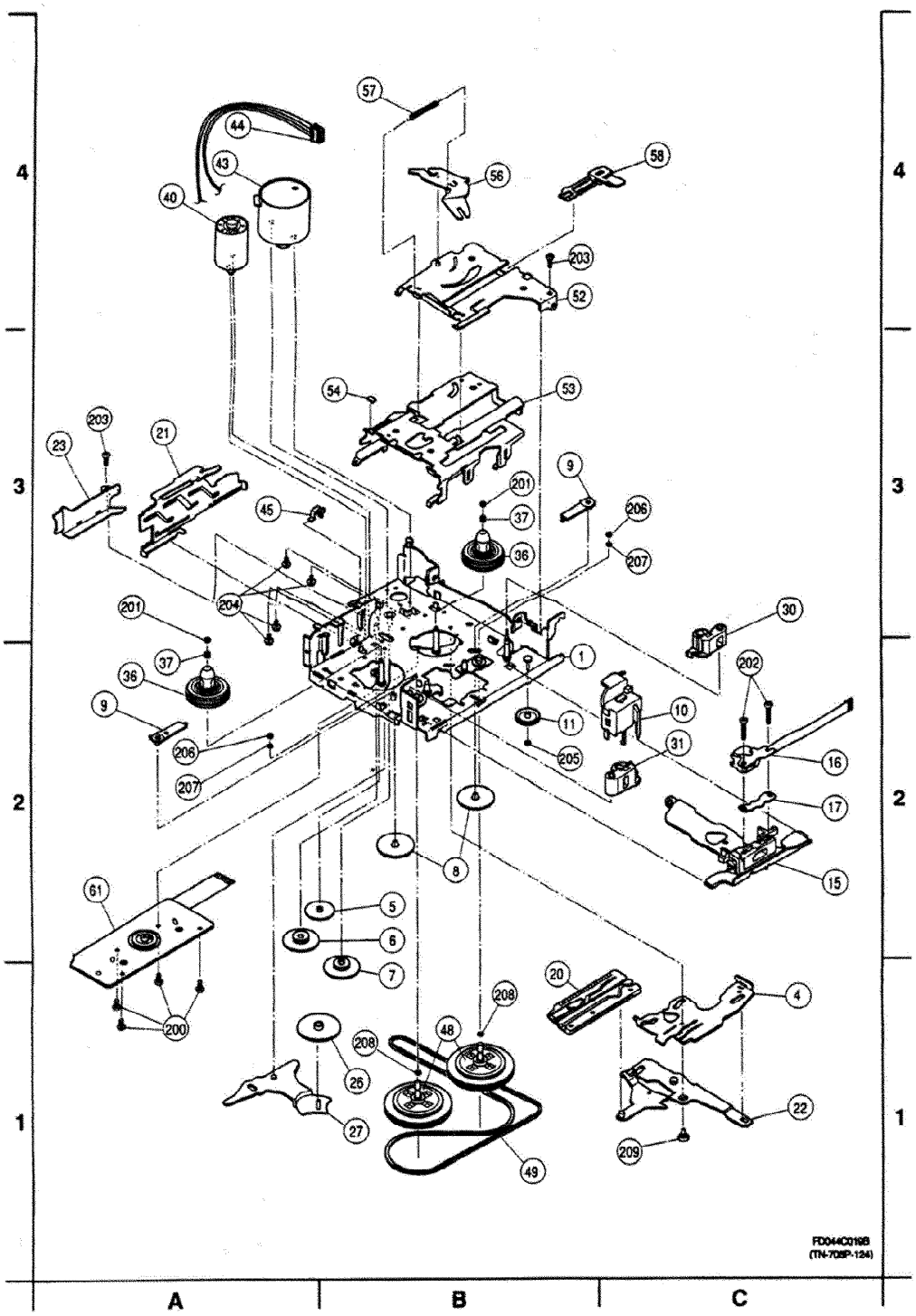
1. Be sure to make your orders of replacement parts according to this list.
2. Important safty notice: Component , indentified by ⚠ mark have special characteristics important for safety. when replacing any of these components, use only manufacturer's specified parts.
3. Location keys in the remarks column indicates the general location of the parts shown in the exploded drawing. as in a load map.
4. "T" marks in remarks colum are indicated supply parts of TAMACO.

Ref. No.	Part No.	Part Name & Description	Remarks
MISCELLANEOUS			
1	YESFA01051	Chassis Rivet Ass'y	(2-B)
4	YESFX046056	Main Plate	(1-C)
5	YESFX003049	B Gear	(2-B)
6	YESFX003050	C Gear	(2-B)
7	YESFX003051	D Gear	(1-B)
8	YESFX003052	P Gear	(2-B)
9	YESFX003053	P.G Plate	(2-A) (3-B)
10	YESFG02021	Guide BKT	(2-C)
11	YESFX026013	Middle Pulley	(2-B)
15	YESFX046057	Head Panel Ass'y	(2-C)
16	YESAH006	P.Head P-5544SD-9949	(2-C)
17	YESFX046058	Head SP Plate	(2-C)
20	YESFX046059	O.P Plate Ass'y	(1-B)
21	YESFX215015	Eject Lever Rivet Ass'y	(3-A)
22	YESFX046060	S.B Plate Rivet Ass'y	(1-C)
23	YESFX046061	O.P Plate Holder	(3-A)
26	YESFX003054	FR Gear	(1-B)
27	YESFX046062	FR Plate	(1-B)
30	YESFX218015	Pinch Roller Arm (F) Ass'y	(3-C)
31	YESFX218016	Pinch Roller Arm (R) Ass'y	(2-C)
36	YESFX209007	Reel Ass'y	(2-A) (3-B)
37	YESFX005074	B. Tension Spring (F)	(2-A) (3-B)
40	YESAK01013	Sub Motor Ass'y	(4-A)
43	YESAK01014	Main Motor Ass'y	(4-A)
44	YESAE283	M Connector Ass'y	(4-A)
45	YESFX006002	Wire Clamper	(3-A)
48	YESFX213004	FL Capstan ASS'Y	(1-B)
49	YEFSFR03003	Main Belt	(1-B)
52	YESFX046064	Case Lifter	(4-A)
53	YESFX239006	Cassette Case	(3-B)
54	YESFS04007	Cusion Rubber	(3-B)
56	YESFX046065	P.S Actuator Plate	(4-A)
57	YESFX005075	P.S Spring	(4-A)
58	YESFX046066	Pack Slider	(4-C)
61	YESAP151	Reel PWB Ass'y	(2-A)
200	YESJS01133	Camera Screw (Tams) 2.0x2.2	(1-A)
201	YESJW01019	Lumilar Washer (Cut) 1.55x3.5x0.5	(3-A) (3-B)
202	YESJS01070	Adjust Screw 2.0x3.0	(2-C)
203	YEFT03084	Camera Tapping Screw 2.0x3.0	(3-A) (4-A)
204	YEJS06130	Tams Screw 2.0x3.0	(3-A)
205	YEJW05130	P.Washer (Cut) 0.85x2.8x0.25	(2-B)
206	YESJW01012	P.Washer (Cut) 1.55X3.5X0.5	(2-A) (3-C)
207	YESJW01013	P.Washer 2.1x3.5x0.2	(2-A) (3-C)

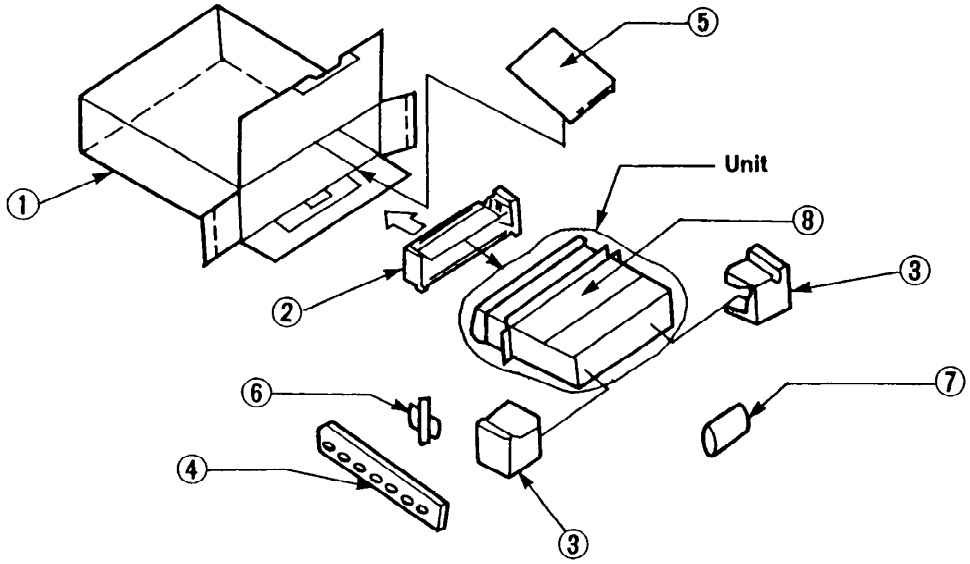
Ref. No.	Part No.	Part Name & Description	Remarks
208	YESJW01014	Lumilar Washer 2.1x3.5x0.1	(1-B)
209	YESJS01091	PK Collar Screw A	(1-C)

20. EXPLODED VIEW (Tape Deck)

■ Numbers in ○ are indicated REF.No. in the REPLACEMENT PARTS LIST



21. PACKING PARTS LIST



· Item numbers listed below shoud not order regular spare parts. (not available)

Item No.	Parts No.	Parts Name & Description	Q'ty	Remarks
1	-	Inner Carton	1	Not Available
2	-	Packing Pad, Front	1	Not Available
3	-	Packing Pad, Right and Left	1	Not Available
4		Rear Support Strap	0	
5	-	Operating Instructions Kit	0	
	YFM094C012ZA	W/B Service List	1	
	-	Warranty Card		Not Available
	-	Service Center List	0	Not Available
6		Screw Kit and Dismounting Pin	0	
7		Power Connector Ass'y	0	
8	FX0214C079YA	Mounting Collar	1	

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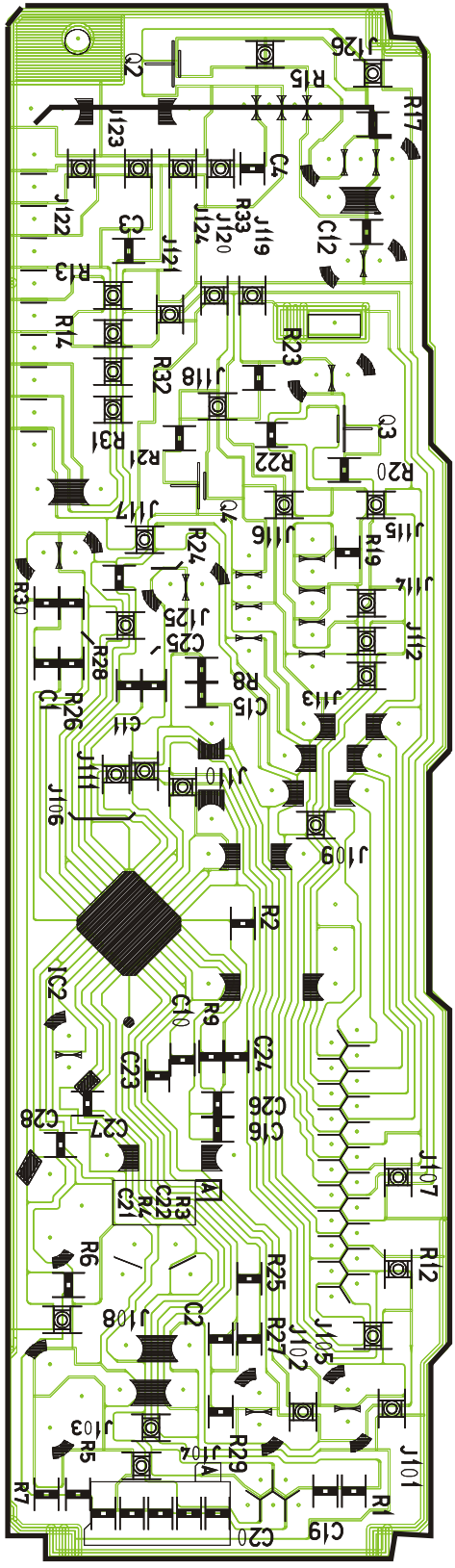
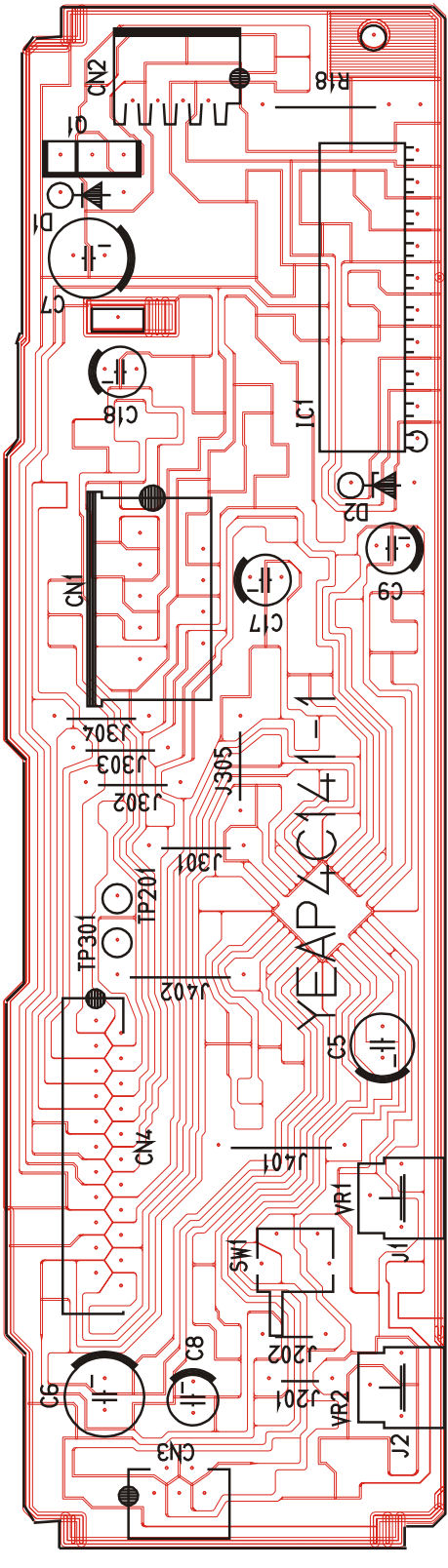
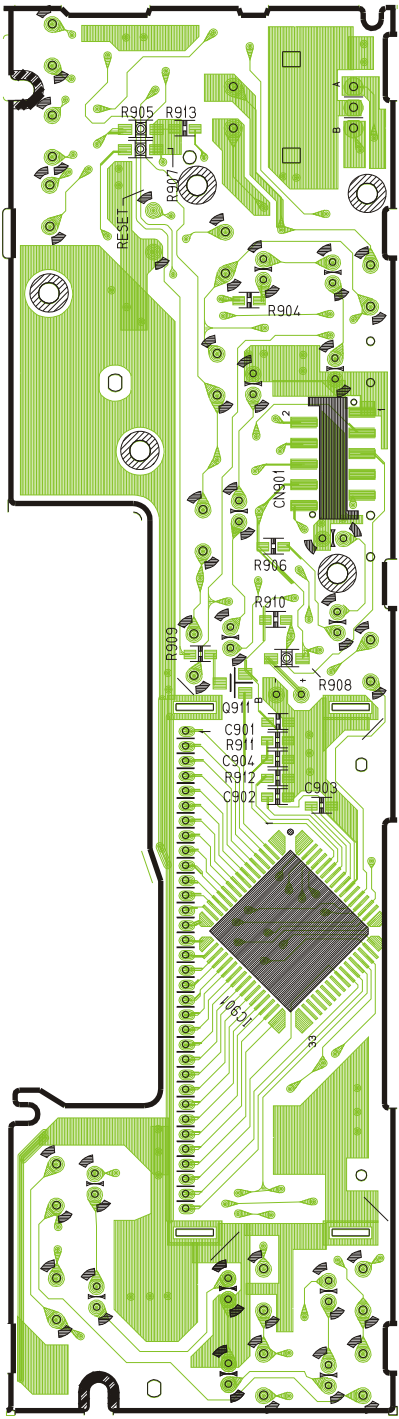


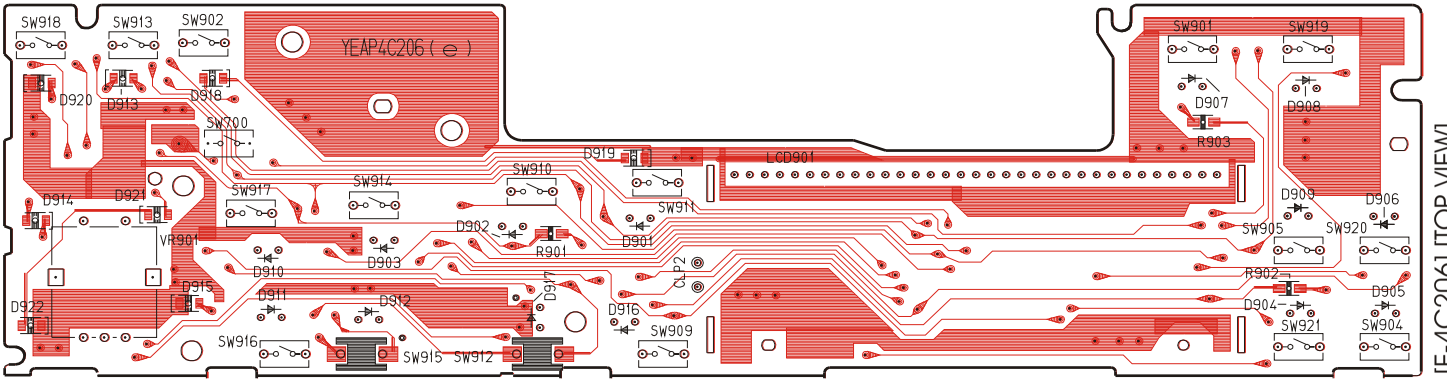
[E-4C141-1] [Bottom Vie w]



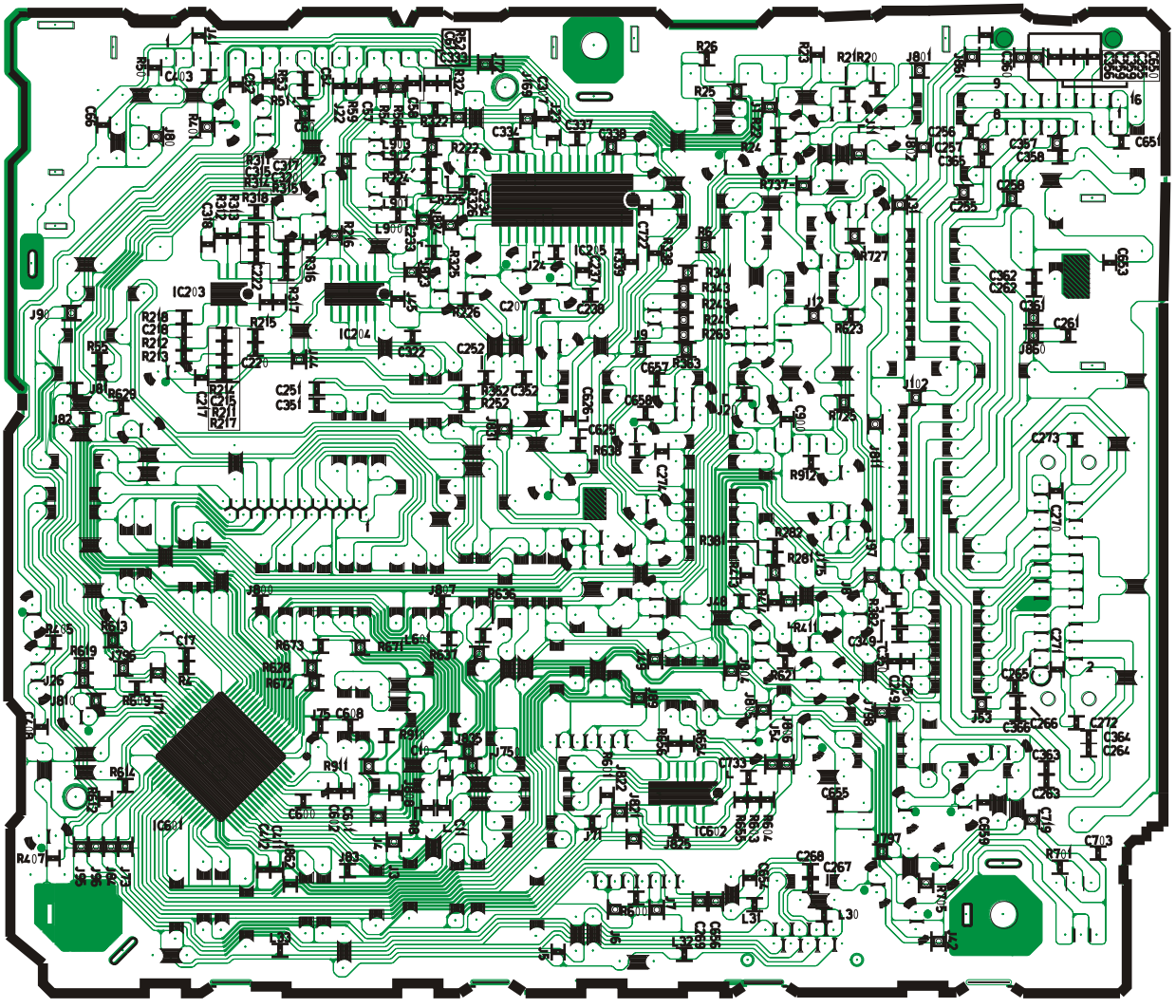
[E-4C141-1] [Top View]



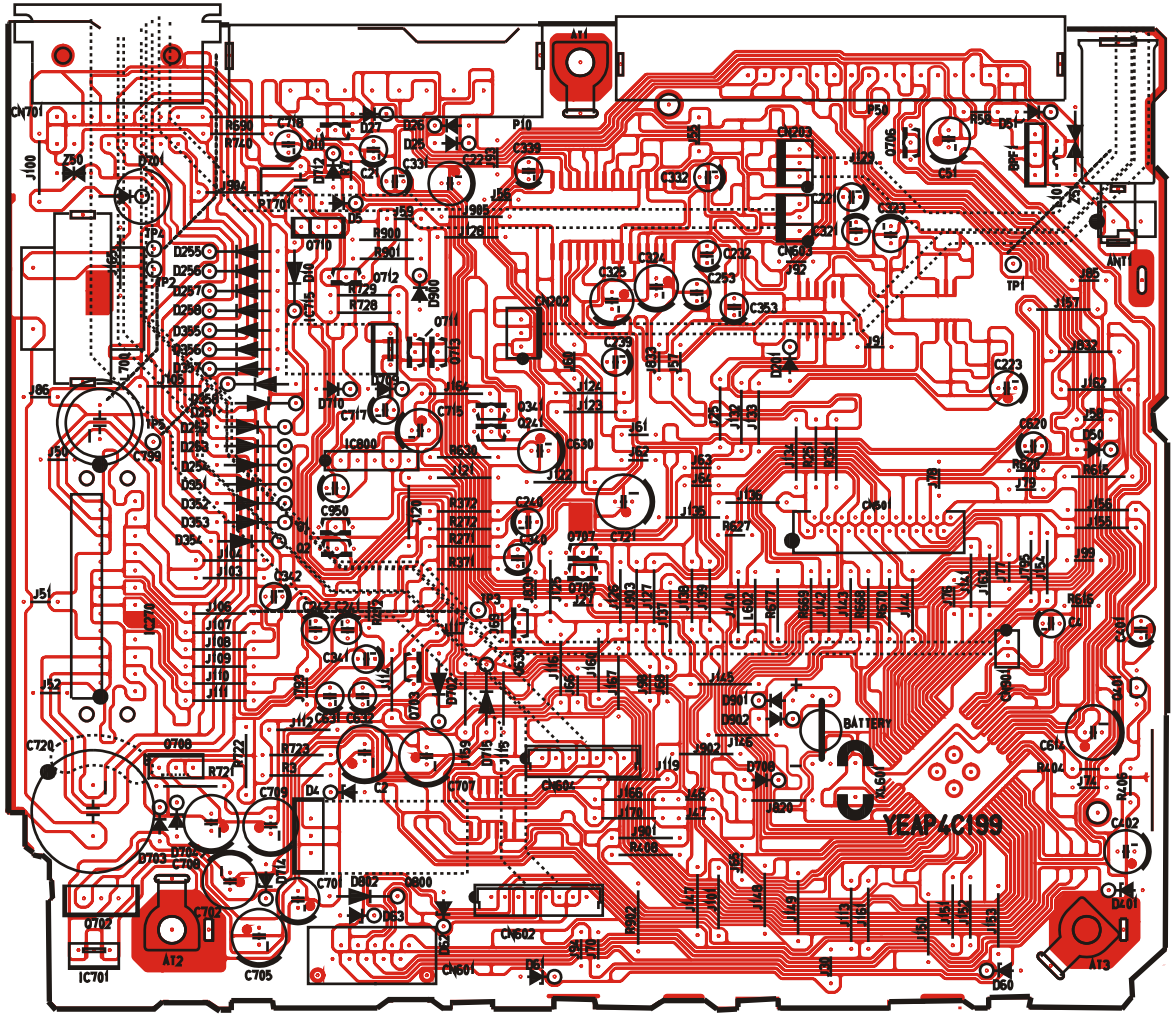
[E-4C206] [BOTTOM VIEW]



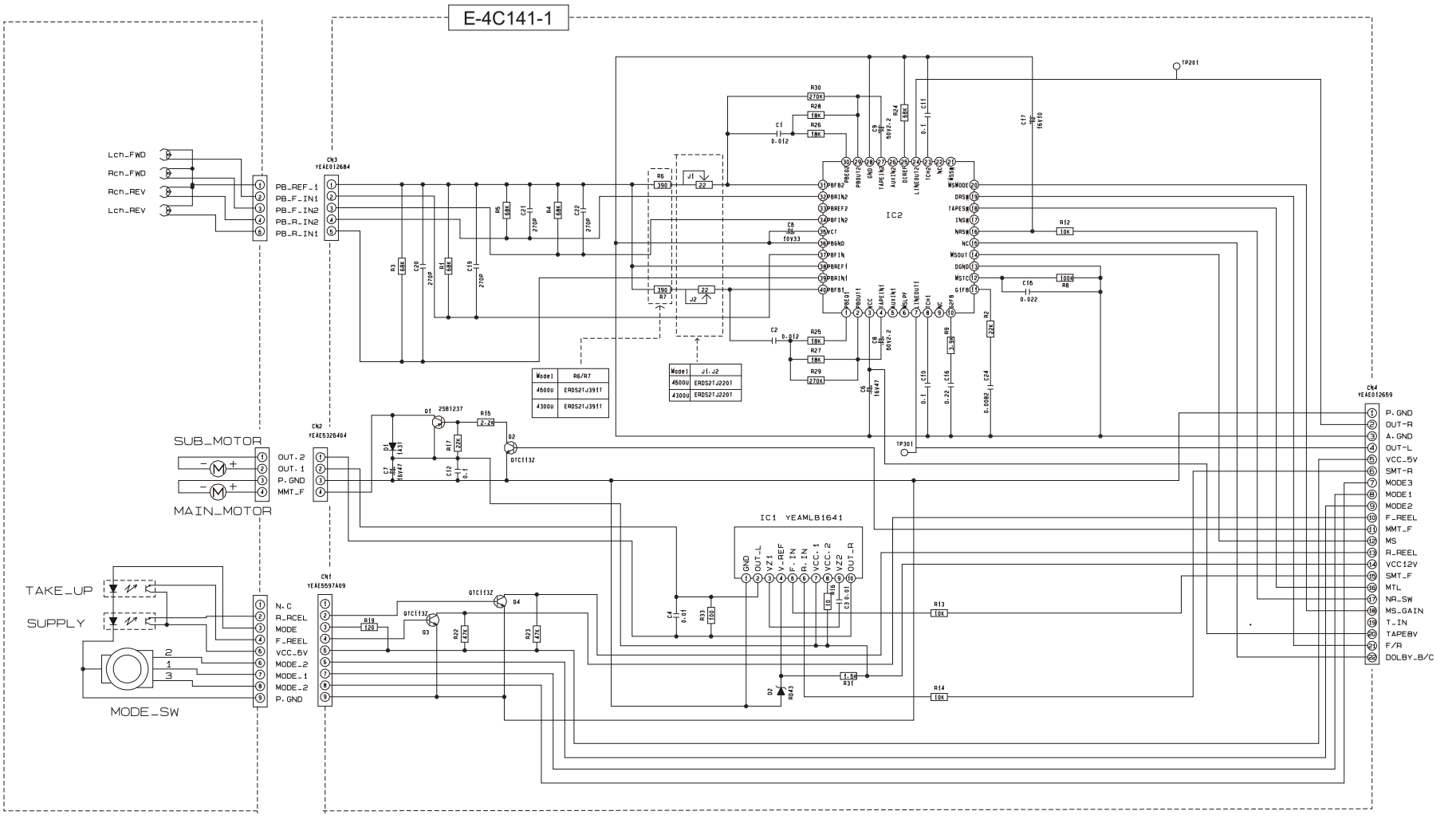
[E-4C206] [TOP VIEW]



[E-4C199] [Bottom View]



[E-4C199] [Top View]


E-4C141-1
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Rch_FWD
Rch_REV
Lch_REV
CN3
YEAE012684
PB_REF_1
PB_F_IN1
PB_F_IN2
PB_R_IN2
PB_R_IN1
IC2
TP201
SUB_MOTOR
MAIN_MOTOR
CN2
YEAE5326404
OUT.2
OUT.1
P.GND
MMT_F
Q1
2SB1237
Q2
DTC113Z
IC1 YEAMLB1641
GND
OUT-L
VZ1
V.REF
F.IN
R.IN
VCC.1
VCC.2
VZ2
OUT-R
TAKE_UP
SUPPLY
MODE_SW
CN1
YEAE0597A09
N.C
R_RCEL
MODE
F_REEL
VCC_5V
MODE_2
MODE_1
MODE_2
P.GND
Q3
DTC113Z
Q4
DTC113Z
D2
RB43
CN4
YEAE012659
P.GND
OUT-R
A.GND
OUT-L
VCC_5V
SMT-R
MODE3
MODE1
MODE2
F_REEL
MMT_F
MS
R_REEL
VCC12V
SMT_F
MTL
NR_SW
MS_GAIN
T_IN
TAPE8V
F/R
DOLBY_B/C
Model
R6/R7
4500U
ERDS2TJ391T
4300U
ERDS2TJ391T
Model
J1.J2
4500U
ERDS2TJ220T
4300U
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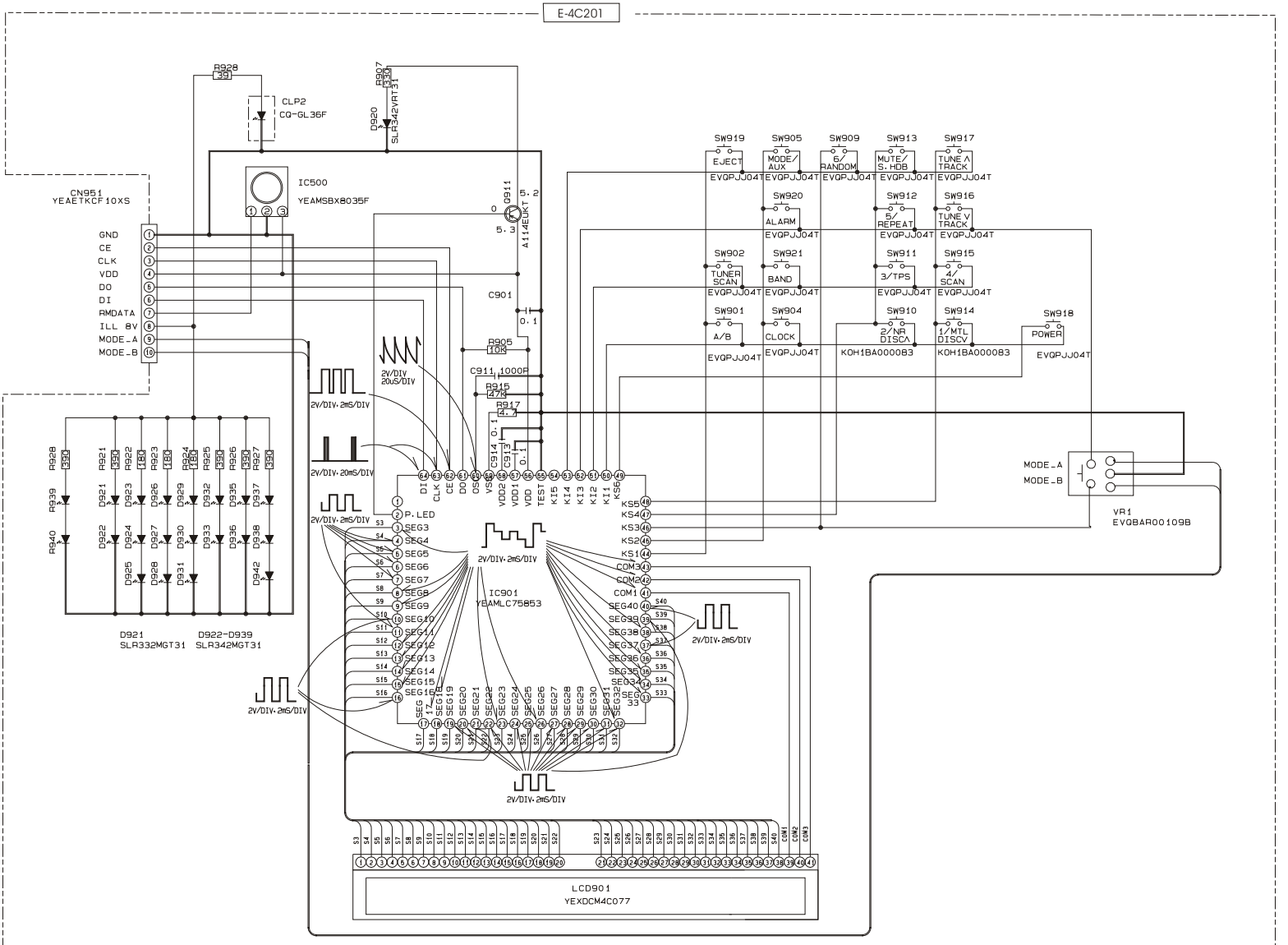
E-4C201
R928 39
CLP2 CQ-GL36F
R907 R908
D920 SLR342VRT31
IC500 YEAMSBX8035F
CN951 YEAETKCF10XS
GND
CE
CLK
VDD
DO
DI
RMDATA
ILL 8V
MODE_A
MODE_B
C901 0.1
R905 10K
C911 1000P
R915 47K
R917 4.7
C914 0.1
C913 0.1
2V/DIV 20uS/DIV
2V/DIV 2mS/DIV
2V/DIV 20mS/DIV
IC901 YEAMLC75853
P.LED
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
SEG15
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KS2
KS3
KS4
KS5
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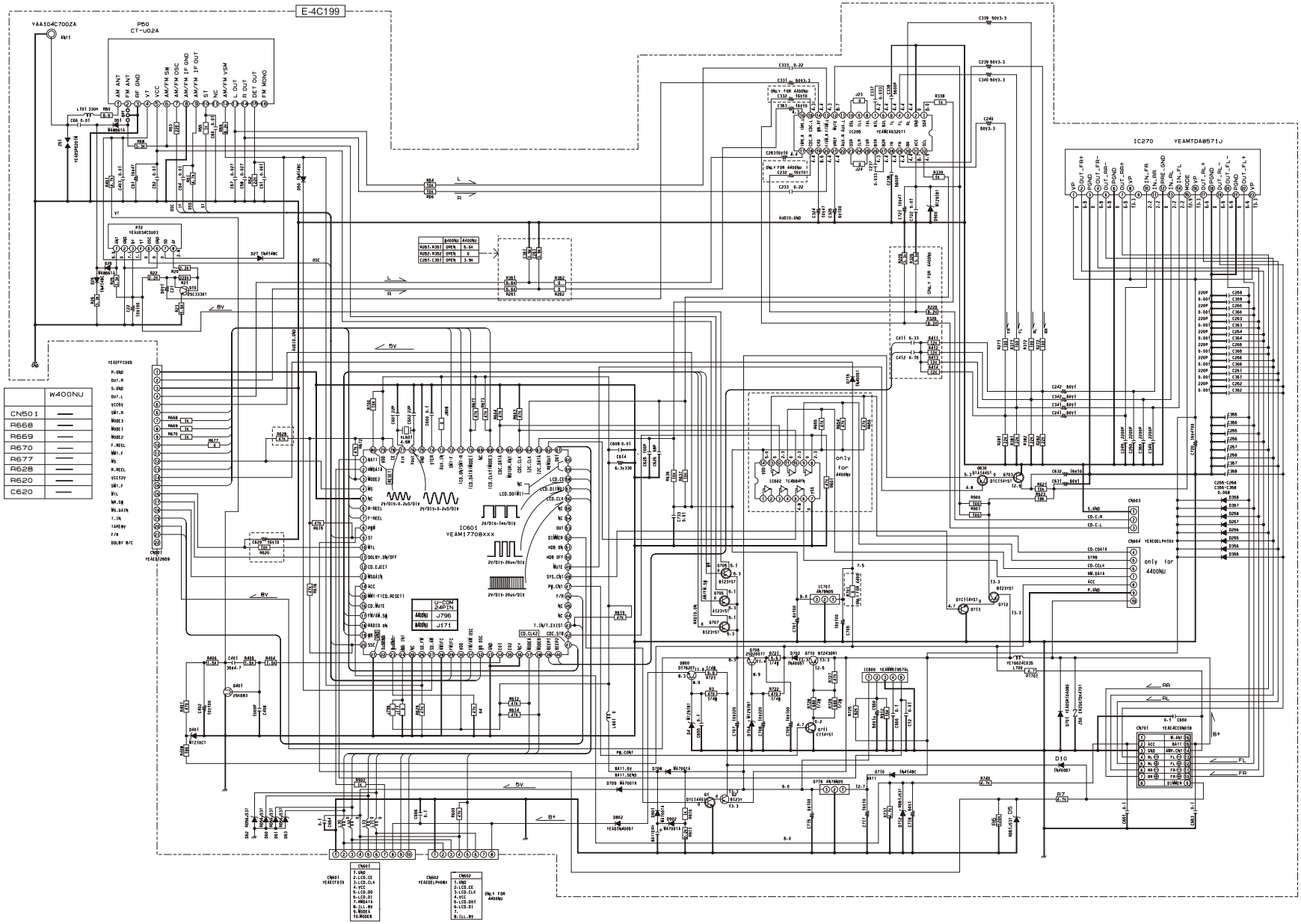
R921 390
R922 180
R923 180
R924 180
R925 390
R926 390
R927 390
R939
R940
D921 D922 D923 D926 D929 D932 D935 D937
D922 D924 D927 D930 D933 D936 D938 D942
D925 D928 D931
D921 SLR332MGT31
D922-D939 SLR342MGT31
SW919 EJECT EVQPJJ04T
SW905 MODE/ AUX EVQPJJ04T
SW909 6/ RANDOM EVQPJJ04T
SW913 MUTE/ S.HDB EVQPJJ04T
SW917 TUNE ∧ TRACK EVQPJJ04T
SW920 ALARM EVQPJJ04T
SW912 5/ REPEAT EVQPJJ04T
SW916 TUNE ∨ TRACK EVQPJJ04T
SW902 TUNER SCAN EVQPJJ04T
SW921 BAND EVQPJJ04T
SW911 3/TPS EVQPJJ04T
SW915 4/ SCAN EVQPJJ04T
SW901 A/B EVQPJJ04T
SW904 CLOCK EVQPJJ04T
SW910 2/NR DISCA KOH1BA0000B3
SW914 1/MTL DISCV KOH1BA0000B3
SW918 POWER EVQPJJ04T
MODE_A
MODE_B
VR1 EVQBAR00109B
LCD901 YEXDCM4C077


E-4C199
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P50
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FM ANT
RF GND
VT
VCC
AM/FM SN
AM/FM OSC
AM/FM IF GND
AM/FM IF OUT
ST
SC
AM/FM VSM
L OUT
R OUT
DET OUT
FM MONO
IC270 YEAMTDAB571J
IC601
YEAM1770BXXX
W400NU
CN501
R668
R669
R670
R677
R628
R620
C620
U-COM 24PIN
J796
J171
CN601
CN602
CN603
CN604
CN701
only for 4400NU
8V
5V
B+
BATT
ACC
AUDIO GND